

IN THE CLAIMS:

Please amend the claims as follows. This listing of the claims will replace all prior versions, and listings, of claims in the application:

1-6. (canceled)

7. (Currently Amended) A linear drive unit comprising:

a yoke body having an exciter winding providing a magnetic field;

a magnetic armature part which is set in linear oscillating motion about a center position in an axial direction by the magnetic field of the winding, the center position being the equilibrium position the armature part adopts when oscillating between its maximum lateral deflection positions, wherein a center of the armature is aligned with a center of the yoke body in the center position; and

a spring having a fixed end clamped in a fixed manner with respect to the yoke body and an oscillating end coupled to the armature part at a point of application and acting on the armature part in the direction of motion;

wherein in the center position of the armature part, the point of application of the spring on the armature part being displaced axially by a predetermined distance in relation to its clamping position, and

wherein the spring is configured as a leaf spring tensioned transverse to the direction of movement of the armature part.

8. (Canceled).

9. (Previously Presented) The drive unit according to claim 7, further comprising a plurality of springs disposed on each side of the center position.

10. (Previously Presented) The drive unit according to claim 7, wherein the armature part is connected to a plunger of a compressor, the axial displacement of the point of application of the spring on the armature part being provided in the direction away from the compressor.

11. (Previously Presented) The drive unit according to claim 7, wherein the spring has a spring constant selected such that the characteristic frequency of the drive unit in cooperation with the total oscillating mass is lower than the frequency of the driving force.

12. (Canceled).

13. (Currently Amended and Withdrawn) A linear drive unit comprising:
a yoke body having an exciter winding providing a magnetic field;
a magnetic armature part configured to be set in linear oscillating motion about a center position in an axial direction by the magnetic field of the winding, the center position being the equilibrium position the center of the armature part adopts when aligned with the center of the yoke body in which the armature may symmetrically oscillate relative to the yoke body between its maximum lateral deflection positions; and
a spring having a fixed end clamped in a fixed manner with respect to the yoke body and an oscillating end coupled to the armature part at a point of application and acting on the armature part in the direction of motion;
wherein in the center position of the armature part, the point of application of the spring on the armature part being displaced axially by a predetermined distance in relation to its clamping position.

14. (Withdrawn) The drive unit according to claim 13, wherein the spring is configured as to be spring tensioned transverse to the direction of movement of the armature part.

15. (Withdrawn) The drive unit according to claim 14, wherein the spring comprises a leaf spring, a coil spring or a helical spring.

16. (Withdrawn) The drive unit according to claim 13, further comprising a plurality of springs disposed on each side of the center position.

17. (Withdrawn) A compressor comprising a pump, a plunger and the drive unit of claim 13, wherein the axial displacement of the point of application of the spring on the armature part is provided in the direction away from the compressor.

18. (Withdrawn) The drive unit according to claim 13, wherein the spring has a spring constant selected such that the characteristic frequency of the drive unit in cooperation with the total oscillating mass is lower than the frequency of the driving force.

19. (Withdrawn) The drive unit according to claim 13, wherein the armature part includes two magnets arranged symmetrically on each side of the yoke body in the center position.

20. (Currently Amended and Withdrawn) A linear drive unit comprising:
a yoke body having an exciter winding providing a magnetic field;
a magnetic armature part which is set in linear oscillating motion about a center position in an axial direction by the magnetic field of the winding, the center position being the equilibrium position where the center of the armature is aligned with the center of the yoke body and/or windings thereof; and
a spring having a fixed end clamped in a fixed manner with respect to the yoke body and an oscillating end coupled to the armature part at a point of application and acting on the armature part in the direction of motion;

wherein in the center position of the armature part, the point of application of the spring on the armature part being displaced axially by a predetermined distance in relation to its clamping position, and

wherein the spring is configured to be tensioned transverse to the direction of movement of the armature part.

21. (Withdrawn) The drive unit according to claim 20, wherein the spring comprises a leaf spring, a coil spring or a helical spring.

22. (Withdrawn) The drive unit according to claim 20, further comprising a plurality of springs disposed on each side of the center position.

23. (Withdrawn) A compressor comprising a pump, a plunger and the drive unit of claim 20, wherein the axial displacement of the point of application of the spring on the armature part is provided in the direction away from the compressor.

24. (Withdrawn) The drive unit according to claim 20, wherein the spring has a spring constant selected such that the characteristic frequency of the drive unit in cooperation with the total oscillating mass is lower than the frequency of the driving force.

25. (Withdrawn) The drive unit according to claim 20, wherein the armature part includes two magnets arranged symmetrically on each side of the yoke body in the center position.

26. (Withdrawn) The drive unit according to claim 7, wherein the armature part includes two magnets arranged symmetrically on each side of the yoke body in the center position.